# ANIMAL ACTIVITIES: A FIRST BOOK IN ZOÖLOGY, PP. 1-261

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Animal Activities: A First Book in Zoölogy, pp. 1-261 by Nathaniel S. French

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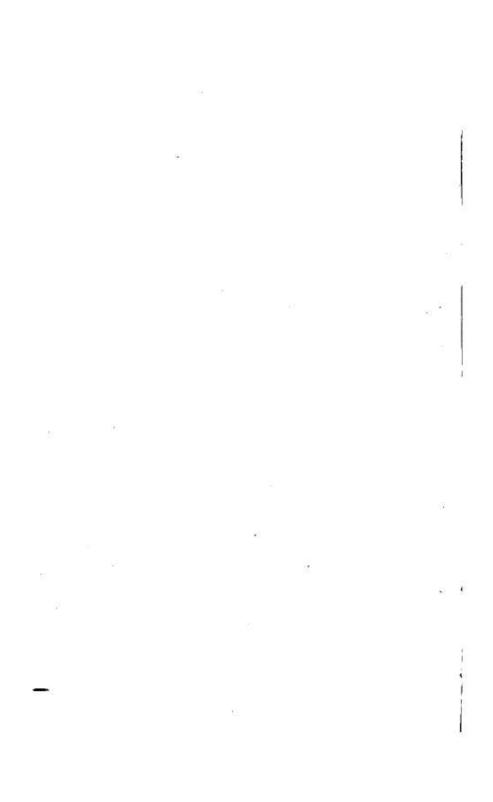
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## ANIMAL ACTIVITIES



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### A FIRST BOOK IN ZOÖLOGY

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With Illustrations

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#### INTRODUCTION. .

THE book here presented is the outgrowth of fifteen years of teaching the subject to large classes in a high school. Its aim is to interest and guide pupils in the study of living animals. Young people are usually ready to be made acquainted with their immediate neighbors in the animal world, and it is hoped that this book may be of assistance to them.

In the choice and arrangement of topics the powers and interests of young students have been kept in view rather than the demands of strictly logical description and exposition. Chapter I outlines the animal kingdom in such a manner as to be useful for reference purposes. Chapter II gives directions for assisting the student in procuring his own specimens for study. Chapter III describes the activities common to all animals. Chapter IV work on the Arthropoda begins. Animals of this group are selected for the early part of the work because living specimens can be easily collected and observed in the fall, at which time Zoölogy is begun in most schools. After the study of the Arthropoda, the book follows the natural order, beginning with the simplest animals and ending with the most complex. In some schools it will doubtless be better to begin with Chapter XI, and study the Arthropoda directly after the chapter on "The Earthworm". This latter order of subjects is advised when the Zoölogy course begins in the winter or spring.

Throughout the book adaptation to environment is constantly pointed out. Much is made of habitat in connection with the manner in which an animal performs its life-functions.

The directions for laboratory work are mainly in the form of questions which must be answered from direct observation. Comparisons and inferences are constantly required of the pupil. The exercises for review of note-book work enable pupils to systematize their knowledge. Useful vocabularies are frequently inserted.

For many valuable suggestions the author is indebted to Miss Helen A. Gardner and Miss Mary E. Winn of the Girls' High School, Boston, and Prof. B. H. Van Vleck of Boston University, who read the manuscript; and to Mr. Frank M. Whitney, principal of the Watertown, Mass., High School and Miss E. O. Patch of the Girls' High School, Boston, who examined the proof-sheets. Mr. Lyman G. Smith of the Roxbury High School and Mr. Arthur E. Sanford assisted in preparing some of the drawings, and many of the illustrations have been reproduced, by permission, from Agassiz's "Seaside Studies" (Houghton, Mifflin, & Co.), "The Horse" by W. H. Flower (D. Appleton & Co.), various works published by Longmans, Green, & Co., and other sources.

#### A LIST OF BOOKS.

All the books on the list given below have been found useful to pupils, and nearly all of them have been reported as "interesting" by many pupils who have read them. Such books may be used to advantage in the preparation of Reports. The list was first printed by a branch of the Agassiz Society connected with the Roxbury High School of Boston, Mass.

ABBOTT, CHARLES CONRAD:

A Naturalist's Rambles about Home. Bird Land Echoes. Illustrated.

AGASSIZ, ELIZABETH and ALEXANDER:

Seaside Studies in Natural History. Illustrated.

ALLEN, GRANT:

Flashlights on Nature. Illustrated.

APGAR, AUSTIN C. :

Birds of the United States. Illustrated.

BADENOCH, L. N.:

Romance of the Insect World. Illustrated.

BAUSCH, EDWARD:

Manipulation of the Microscope.

BATEMAN, G. C.:

The Vivarium, Illustrated.

Beard, James Carter:

Curious Homes and their Tenants. Illustrated.

BEDDARD, FRANK E.:

Elementary Practical Zoölogy. A Text-book of Zoogeography.

BOLLES, FRANK:

At the North of Bearcamp Water.

Brooks, W. K.:

The Oyster. Illustrated.

BUCKLEY, ARABELLA B. :

Life and her Children. Illustrated.

The Winners in Life's Race. Illustrated.

Burroughs, John:

Birds and Bees and Sharp Eyes.

Riverby.

Wake Robin.

Locusts and Wild Honey.

CARRINGTON, EDITH:

Animals' Ways and Claims. Illustrated.

CHAPMAN, FRANK M.:

Bird Life. Illustrated.

CHATTY READINGS IN ELEMENTARY SCIENCE (Longmans):

Nature Knowledge, Books I, II, III. Illustrated.

CORNISH, C. J.:

Animals of To-day. Illustrated.

Animals at Work and Play, Illustrated, Wild Animals in Captivity. Illustrated,